

CLAIMS

What is claimed as invention is:

1. A strutless building module for use in assembling a domical structure, said
5 module comprising:
a polygonal member having a center, an exterior surface, an interior surface, a plurality of
sides, a lower edge, and a plurality of faces each one of which has an outer edge intersecting one
of said sides and inclined upwardly from said side so that said plurality of faces converge in a
point at substantially the center of said polygonal member;
10 a center connector affixed to said center of said polygonal member, said center connector
comprising a center connecting bolt, a center connecting washer, positioned over said center
connecting bolt, said center connecting bolt depending downwardly from said interior surface of
said module when said module is laid flat on its lower edge; and
connection means for assembling a plurality of said polygonal members into a domical
5 structure.
2. The strutless building module of claim 1 wherein said connection means
comprises a plurality of bolts and complementary nuts, and wherein each of said sides of said
polygonal member includes at least one aperture for insertion of one of said bolts.
3. The strutless building module of claim 1 wherein said center connector bolt is
20 integrally formed into said polygonal member.
4. The strutless building module of claim 1 wherein each of said sides depends
downwardly from said exterior surface of said polygonal member at an angle in the range of 64

to 74 degrees.

5. The strutless building module of claim 1 wherein each of said faces is inclined upwardly from its outer edge to the center of said module at an angle in the range of eight to eighteen degrees.

5 6. The strutless building module of claim 1 wherein said polygonal member is substantially pentagonal.

7. The strutless building module of claim 1 wherein said polygonal member is substantially hexagonal.

8. The strutless building module of claim 1 further including a disc member, said disc being substantially circular and concentric with center connector washer, said disc having a convex side and a concave side, said convex side in approximation with the interior surface of said module.

9. The strutless building module of claim 8 wherein said disc member has a circumference that engages the sides of the module.

10. The strutless building module of claim 8 wherein said disc member is fabricated from polarized transparent material.

11. A method of assembling a modular domical structure, comprising the steps of:
providing a plurality of strutless building modules, said modules comprising polygonal members having a center, an exterior surface, an interior surface, a plurality of sides, a lower edge, and a plurality of inclined faces each one of which has an outer edge intersecting one of said sides and oriented so as to converge in a point at substantially the center of said polygonal member, a center connector affixed to said center of said polygonal member, said center

connector comprising a center connecting bolt, a center connecting washer, positioned over said center connecting bolt, said center connecting bolt depending downwardly from said interior surface of said module when said module is laid flat on its lower edge, and connection means for assembling a plurality of said polygonal members into a domical structure;

5 erecting a boom-free hoist having an upper end and a base, said hoist having a vertical support member disposed in a substantially vertical position, a winch connected to the vertical support member near the base via connection means, a hoist pulley located proximate the upper end of the hoist, a cable operatively connected to the winch and passing upwardly through the hoist pulley and then downwardly where it terminates in a heavy hook;

10 positioning an array of modules around the base of the hoist;

connecting each of the modules using the connection means so as to form an upper course;

providing at least one connecting cable having means for connection to the heavy hook and the center connecting bolt of a building module;

5 connecting at least one center connector bolt of each of said modules forming the upper course to the heavy hook using at least one connecting cable;

elevating the upper course upwardly using the winch; and

adding further building modules to the elevated modules in due order to form a plurality of courses until the dome is constructed to the desired extent.

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